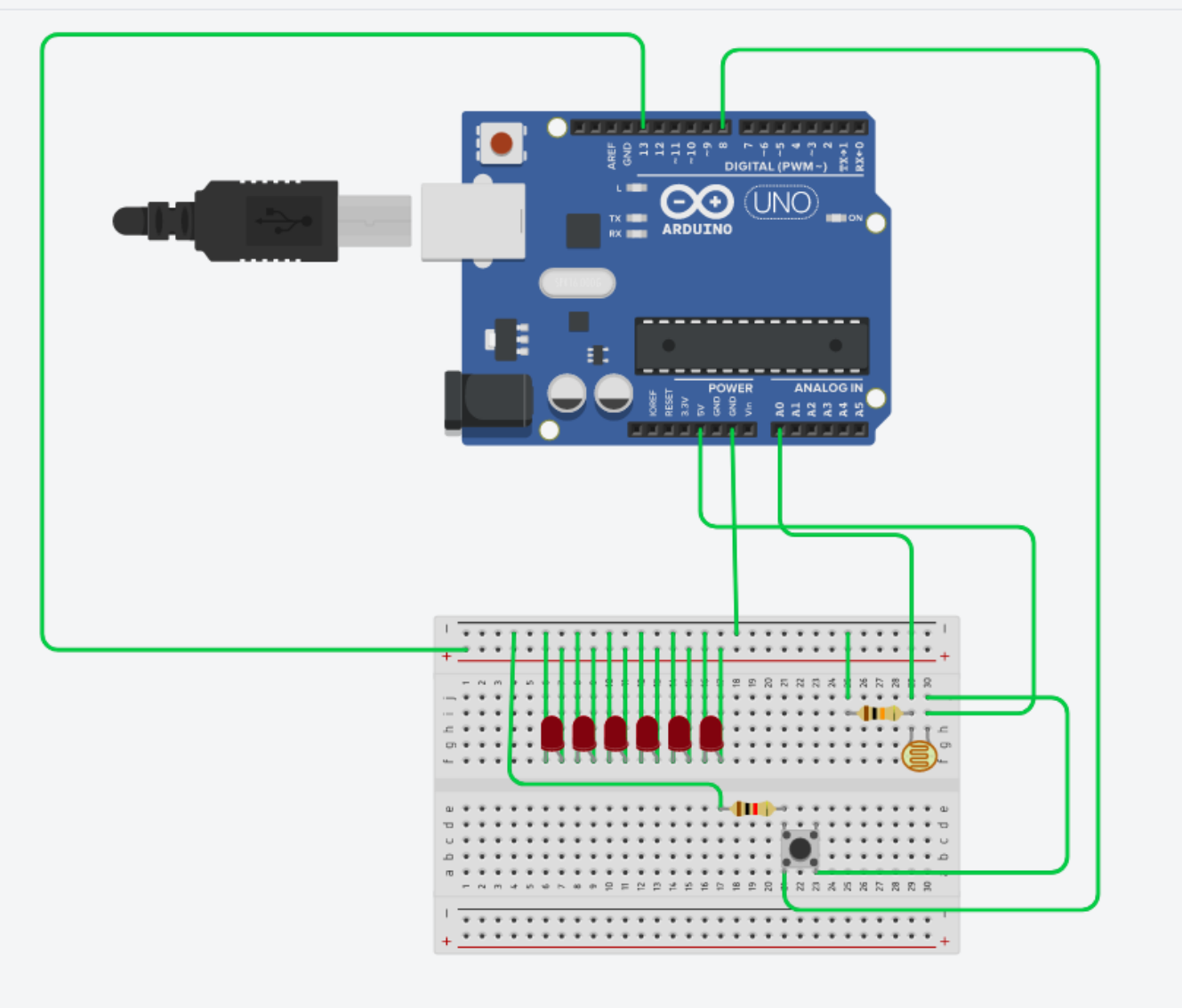
BEEE LAB EVALUATION

Circuit Diagram:



Theory

Concept Used:

The LEDs start blinking when the LDR isn't receiving any light. The push button changes the pattern of blinking form 500 ms frequency to 1000 ms frequency.

Learning and Observations:

Following observations were recorded during the experiment:

- The LED turns on when the LDR isn't receiving any light.
- The LDR needs to be connected to the ground to give LOW input when it is not subjected to darkness.
- We can use a static varialble to count the number of button pushes to set the code accordingly to change the blinking paattern.

Problems and Troubleshooting:

No problem was faced while making the circuit and it went successfully.

Precautions:

The following precautions need to be considered while performing this experiment:

- The connections of the USB in both the PC and the ARDUINO UNO board should be snug.
- The USB ports of the PC and the ARDUINO UNO should be in a working condition.
- The sketch should be logically and syntactically correct and germane to the experiment that needs to be performed.
- The correct serial port should be selected that is the one through which the ARDUINO UNO has been connected.
- Look for errors during compilation and upload of the executable to the ARDUINO UNO.
- Disconnect the digital 1 and 0 pins while uploading the program to the board.

Do not open more than one instance of the ARDUINO IDE at a time.

Learning outcomes:

The various learnings as the outcome of performing the above-mentioned experiment are:

- Use of the analogRead() function.
- Connecting an LDR to take input and send it to ARDUINO.
- Setup of a potential divider circuit.
- Connection of multiple LEDs to a single pin of the arduino.